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LADIES'  
SOUTHERN FLORIST.

BY

MARY C. RION.

"This is an art which does mend Nature,—change it rather: but the art itself is Nature."—SHAKSPEARE.

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COLUMBIA, S. C.:  
PETER B. GLASS.

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1860.

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TO  
MY FRIEND,  
A. M. HOLBROOK, Esq.,  
OF  
NEW ORLEANS,  
(TO WHOM THIS VOLUME OWES ITS EXISTENCE,)  
THIS WORK  
IS RESPECTFULLY INSCRIBED  
BY  
THE AUTHOR.





## PREFACE.

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The Author of this volume, desiring a book on Flower Gardening which might be adapted to the South, and, at the same time, written in such a manner as to be intelligible to one not a *professional Florist*, was unable to find any work answering either of these requisites. After procuring such works on Flowers as were accessible, I commenced making memorandums of such information as I found in these, by observation, to be suited to our climate—making such modifications, corrections and additions as my experience suggested. These memorandums I enlarged by inquiries made of practical flower-garden *workmen*, and by hints derived solely from my own practice.

The works on Flowers to which I have referred, are those of Buist, Breck and Watson. I also consulted the Patent Office Reports, and other valuable Congressional publications. By these means, my memorandums, intended solely for my own use, assumed quite formidable dimensions. A friend, happening to look over them, suggested that I should have them published in book form, if for no other reason than for my own convenience. In following this suggestion, which I have done after some hesitation, I am alone actuated by

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a desire to place in the hands of the Ladies of the South such a work as I in vain sought, when I commenced the culture of my Flower Garden. If I accomplish this, it is all I desire.

I have intentionally avoided all technical or scientific terms, using only those understood by every lady of education. In some of my directions I have been very precise and minute, in order that I might avoid that defect of all works on Floriculture that I have ever seen, of giving directions in such a manner as to be understood only by those who needed no instruction on the subject.

I have omitted many plants, because they either required no particular culture or were well known to every one; and my aim was to make a *small* Hand-Book of Flowers.

M. C. R.

Winnsboro', S. C., Feb. 22, 1860.



# Ladies' Southern Florist.

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## BOTANICAL OUTLINE.

Every lady who has a flower garden should be sufficiently well acquainted with botanical terms, to express herself intelligibly about the different plants and flowers she cultivates. We give such distinctive terms as may serve this purpose, furnishing a botanical vocabulary that one may properly use in conversation without appearing pedantic.

Plants are *woody*, as the rose, or *herbaceous* as the pink. According to the size, woody plants are *trees* or *shrubs*. Woody plants have solid stems, like the rose; or hollow stems, like the golden rod. Herbaceous plants are *bulbous* rooted, like the hyacinth; *tuberous* rooted, like the dahlia; or *fibrous* rooted, like the pink.

With regard to duration, those plants that mature and die the *first* year, are termed *annuals*; those which mature and die the *second* year, are *biennials*; while those which live an indefinite number of years are termed *perennials*. Thus the phlox is an annual—the holly-hock is a biennial—and the rose is a perennial. Trees and shrubs generally are perennial.

Leaves are *orbicular*, or round, like the nasturtion; *reniform*, or kidney-shaped, like the ground ivy; *cordate*, or heart-shaped, like the heart-leaved aster; *oval*, like some of the azaleas; *elliptical*, like the olive; *lanceolate*, like the peach; *linear*, like the gladiolus; *acrose*, or needle-shaped, like the pine; *palmate*, or hand-shaped, like the passion-flower; *digitate*, or finger-shaped, like the parts of the peonia leaf; and *tubular*, like the side-saddle flower. The margins of leaves are *regular*; *serrated*, or notched like a saw; *crenate*, or scalloped; *ciliate*, or

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fringed like the eye-lashes; *lobed*, when deeply indented; and *prickled*. Leaves are also *simple*, like the olive, or *compound*, like the peony or rose.

According to the duration of the leaves, plants are termed *caducous*, that is, those whose leaves fall before the end of summer; *deciduous*, or dropping the foliage in the autumn; and *evergreen*, whose leaves preserve their greenness throughout the year. Most evergreens change their leaves annually, but the new foliage is always sufficiently developed before the old ones fall, to preserve the verdure. Those evergreens that do not change their leaves annually, but renew their foliage but once in two, three or more years, are called *persistent* evergreens.

According to Botanists, all plants have flowers; but, in common parlance, those only are called flowering whose flowers are conspicuous or ornamental.



The different parts of a flower are well worthy close examination. Let us examine the divisions of the pink. The flower leaves, upon which the color of the pink depends, are called *petals*; all the petals of a flower, taken together, form the *corolla*. In the single pink, the corolla consists of five petals—in the morning-glory of only one petal. Those flowers which have a single row of petals, botanists style *natural*, while they condemn those which have two or more rows of petals, as *monsters*. We think that a better nomenclature; would be that of *natural* and *improved*. We would designate a single pink as natural, and a double pink (the botanist's monster) as an improved variety.

Within the petals are little thread-like organs; the two central ones are *pistils*. The end of the pistil is called the *stigma*; the part of the flower out of which the pistils grow is called the *germ*; the part

of the pistil, between the germ and the stigma, is the *style*. The germ, when mature, has one or more *cells*, which contain the seed. The ten thread-like organs that surround the two pistils, are the *stamens*. The little head to a stamen is the *anther*; this bursts, when the pink comes to maturity, and scatters a fine light dust which it contains, called the *pollen*. It is the pollen, falling upon the stigma of a flower, that fructifies it, or causes the production of fruit or seed. The pollen of one flower, carried by the wind or insects to the stigma of other flowers, under favorable circumstances, produces mixed varieties, or hybrids. Botanists style the stamens, the male organs, and the pistils, the female organs of plants.

The number of pistils and stamens differ, and are variously combined and situated in different flowers. Upon this depends the Linnæan system of Botany, once con-

sidered the best, but now superseded by what is styled the Natural system. As words are arranged in a dictionary, according to the letters which they contain, without regard to their meaning, so Linnæus placed in the same class those plants whose flowers had the same number of pistils and stamens, without the least respect to their other characteristics. Thus, according to Linnæus, the pink and the hydrangea belong to the same order and class. Botanists now classify plants according to their physiological peculiarities and diversities of external and internal structure.

The petals of a pink are bound together by a green envelope; this is the *calyx*. Some flowers, the lily for instance, have no calyx.



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PREPARATION OF THE GARDEN.

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When it is within one's means, or time allows of the delay, *trenching* is undoubtedly the best of all preparations for a flower garden. Thorough trenching and manuring will amply repay all labor and expense, by the rapid and luxuriant growth of every thing. But often this is not practicable, and in such cases we recommend the process of "garden-trenching" as a very good preparation of the soil for planting. This is done as follows: Commence on one side of the garden, two feet from the fence, and dig a trench one spade deep, throwing the earth on the side towards the fence. Then manure the bottom of this trench and spade up the bottom, turning it over and breaking up the subsoil with the spade,

mixing in the manure with the subsoil. This done, commence a second trench, alongside the first, likewise digging one spade deep and throwing this earth over into the first trench. Then manure the bottom of the second trench, and spade it in as in the first. Then begin another row, and continue the process until your whole garden ground is thus trenched. A very important advantage in this plan of digging, is the preservation of the surface soil on top, while at the same time the subsoil is loosened and enriched. After the last trench is finished, have the earth, which was thrown next to the fence out of the first trench, carried over to fill up the last trench on the opposite side of the garden. When it is known where wide walks are to be, the manuring may be dispensed with in such places, though the subsoiling must be carried on throughout. Be careful to eradicate every vestige of grass roots while

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thus trenching the garden. Having finished trenching, rake the surface even and lay out the garden into walks and beds. This done, scatter over the beds woods' earth, or such other manure as you may wish to enrich the surface soil with. Allow the ground to settle a week or ten days before planting any thing.

Every one must suit their own taste as to the *plan* or design of the flower garden, as no rule can be laid down for this. The main walk, from the dwelling to the front entrance, should be the width of the steps of the house; and, in long walks, the width should be increased in proportion to the length. Beds should never be square or triangular, but they should be oval, or circular, or irregular in shape. Edgings to the beds, to keep them in shape, can be made of dwarf box, violets, lavender, pinks, and lemon or vanilla grass. The beds should only have a slight elevation above the

walks, which will soon be attained by the depression of the walks, caused by treading upon them.

Ornamental hedges along the main walk, or on the sides and rear of the garden, are handsome and appropriate. But, unless you wish to conceal your garden from view, never plant a hedge in *front*. Hedges may be grown of wild orange, privet, French furze, euonymous, and tree box, of green or variegated varieties.

If the situation is sloping and liable to wash by rains, the garden should be laid out in terraces. This is picturesque, and the *only mode* by which such gardens can have any permanency. The face of these terraces may be made permanent and ornamental by being sodded with vanilla or ribbon grass, or both combined.

In furnishing plants for your garden, let the opposite sides correspond without being identical. For instance, a rose on

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one side may correspond with a rose on the opposite side, of a different color. Match an evergreen by an evergreen opposite, of the same character, but of a different variety; an English laurel by a magnolia; a deodar cypress by a funereal cypress, etc. By such an arrangement, you will not, as some thoughtlessly do, reduce your garden, as far as variety goes, to one half its extent. As a general rule, making an exception only in favor of the most beautiful and showy varieties, have only *one* of a kind, which, if it dies or meets with an accident, you can replace from the same source you obtained that one.

It is better to procure plants, of all kinds, from a nursery as near you as possible, as they will be assimilated more to the locality you reside in. Never import plants from a more northern clime, as the process of acclimation is difficult and always hazardous.



## HEDGES.

It is of the greatest importance to prepare the ground thoroughly for hedges, to bring them sooner to maturity, and to make them more durable. The ground should be trenched two or three feet deep, throwing the subsoil on one side, and the surface soil on the other. If the soil is poor, it is absolutely important to manure well, mixing the surface soil and the subsoil with the manure, layer by layer, until within a half foot of the level of the ground. Then fill up with surface soil, mixed with woods' earth. Allow the trench to settle before planting, and fill up again, if below the surrounding surface. For the first two years the hedges must be kept free from weeds. Trim them close and neat, and clip, both on the sides and top, once or twice a year. They should be trimmed just before the new growth starts. Always clip in a conical or elliptical form, as the thinning of the branches

towards the top increases the development of the plants at the bottom, in consequence of the greater elaboration of sap in those parts, and the free admission of air, light and rain.

The *Arbor-vitæ* is valuable for hedges, on account of the beauty of its foliage and compactness of its growth. Planted alternately in two rows, from twenty to twenty-four inches apart. In a few years the hedge increases so much in thickness as to become impenetrable.

The *Laurustinus*, with its shining leaves and showy white flowers, is very easily cultivated, and makes a beautiful hedge. It is difficult to keep this hedge in tolerable shape, on account of the luxuriant shoots which it sends out. It should be pruned with a knife. Prune early in the spring, cutting out those shoots that have already flowered, cutting close to a leaf. But the new shoots of the spring must not be short-

ened in, because the flowers are produced at the extremity of the new wood.

Of the *wild orange*, *French furze*, *tree box*, *euonymous*, etc., for hedges, we treat particularly elsewhere.

The *Cherokee*, or the *MacCartney* roses, are admirable for fences, planting the cuttings a foot apart and six inches deep, leaving one end out, pointing to the south. Press the earth closely to them with the foot. If properly pruned they make beautiful and impenetrable hedges. The *Cherokee* requires constant shortening in, or it will die out at the bottom, and become unsightly, in which respect it is much inferior to the single white *MacCartney* rose. The last rose must have rooted cuttings to prove entirely successful. Both roses are of most rapid and luxuriant growth.

The *lilac* makes a pretty hedge alternated with the *sweet brier*, but they are not evergreen. The *sweet brier* seed should be sown

in the spring, having kept them in sand through the winter. Let the plants grow as they like for the first year. The second year cut them down to the ground and they will spring up and require no further care than occasional trimming. When the stalks become naked, cut the roses down to the ground again.

#### TRANSPLANTING.

This should never be done when the earth is so wet that it adheres to the spade, but only when the soil is friable. Dry, cool weather—cool, but not freezing—is the best time. Transplanting may be done any time from the middle of September to the middle of February. The early spring is the most favorable season for all shrubs, just *before* the new growth starts. The shorter time the plants are out of the ground, the surer of success is the operation of transplanting. If you are not prepared to plant immediate-

ly, bury the plants, slanting to the south, in the ground until you are ready. Cut off with a sharp knife any bruised roots, and prune irregularly grown branches. Never cut away the tops of any resinous evergreen. Evergreens are best removed in early spring. These are apt to suffer by winter transfer.

Climbing shrubs should be cut down to the ground in transplanting, that the growth may be entirely new. The same plan is good for the laurel, which is an exception to its kind. Plants or shrubs from the woods should be closely pruned, cutting away from the head of the plant (except in evergreens,) one-third to one-half its height, carefully shortening and opening. In taking up plants, care should be taken to secure good roots and to bring away all the fibres as perfect as you can. Deciduous shrubs should not be transplanted after the leaves begin to expand.



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The following process will be found excellent for transplanting. Dig a hole two or three feet square, and eighteen inches or two feet deep, according to size of plant. After manuring the bottom with well-rotted manure and earth mould, well incorporated with a portion of the soil, place in the roots, and fill in gradually with finely pulverized earth, placing the transplant *above* the level of the surrounding ground, to allow for settling. Set the plant with the same side to the south which it preserved in its former location. This, in most plants, can easily be recognised, as the leaves always present their face to the south, while the back of the leaf is towards the north. After filling up the hole, raise a circular ridge around the plant, so as to form a basin into the stem. Then slowly pour on water, until the ground will soak up no more without over-running the ridge. Let the earth settle for half an hour; then fill in and rake the sur-

face even. Support the plant with a stake until it is established. Shade and keep moist until it rains, and then let the plant take care of itself.

### SEED-SOWING.

The soil on which flower seeds are to be sown should be rich and light, and prepared with great care, being finely pulverized and then pressed with a board. Seed should be sown from one-eighth to an inch deep, according to size. The smallest seed should be scattered on the surface, and then fine soil strewn or sifted evenly over, not covering more than an eighth of an inch deep. Press the top again with a board. Protect from the sun by evergreen boughs, and water freely until well up.

In sowing seed for the purpose of procuring improved varieties, care should be had, not only that the seed are taken from the finest existing kinds, but also from the hand-

somest, the largest and the most perfect specimens, and these alone should supply future seed.

Seed planted in the winter remain in a torpid condition, and will come out as soon as the warmth of spring is felt. The seeds of most *annuals*, or such plants as live but one year, should be planted in the spring, while many biennials require to be planted in the autumn to be vigorous.

Flower seed to be sown in the *Spring*:—  
China Asters, Poppy, Petunia, Portulacca, Morning Glory, Coxcomb, Larkspur, Hearts-ease, Holly-hock, Sweet William, Phlox, Mullen Pink, Indian Creeper (very late), Bachelor's Button, Candy Tuft, Clarkia, Ice Plant, Mignonette, Ambrosia, Tassel-flower, Sensitive Plant, Anemone, Sweet Pea, Amaranth, Feverfew, Fringed Gention, Iris, Pinks, Sun Flower (very late), Marigold, Calliopsis, Ladies' Slipper, Gilly Flower, Verbena.

About the 23d of March is the best time for sowing all the above seed, except the more hardy, which may be sown at the time of the flowering of the peach. If the season be unfavorable and cold after the sowing of the seed, the seed-beds should be covered with boards to retard the vegetation until all danger is past. As soon as the boards are removed the seed will come up rapidly, and only require moisture to thrive.

Flower seed to be sown in the *Fall*:—Coropsis, Canterbury Bells, Fox-glove, Mourning Bride, Snap-dragon, Candy Tuft, Four-o'clocks, Double Rocket Larkspur, Columbine, Gladiolus, Clematis, Periwinkle, Violet, Forget-me-not, Love-in-a-mist.

Some of these flowers give stronger plants by *fall* planting, though *spring* planting will give earlier blooms. The middle of October is the time to sow all the above flower seed.

## WATERING.

This operation, unless done very judiciously, is likely to effect more harm than good. The blooming of most plants is improved by copious watering during their season of flowering; but this should only be tried with the healthy and vigorous ones. During times of drought, in hot weather, many sickly plants are killed by injudicious watering. For these, the best medicine is *shade*. Shingles, boxes with the top off and one end knocked out, or matting on stakes, will answer for this purpose, using one or the other, according to the size of the plant. *With* shading, water properly applied is beneficial in hot, dry seasons; and without shading, is positively injurious, unless the application be very copious, so as to saturate the ground to some distance from the plant, and be repeated daily. In *cool*, dry weather, watering is more apt to be beneficial. All



plants have the power of adapting themselves to the season, and it is a bad rule to water merely because the weather is dry. Except in the case of *recent* transplants, and cuttings *lately* established, as a general rule never water.

When necessity requires watering, observe the following rules :

1st. In cold weather, water in the morning after sunrise, with cold water.

2d. In hot weather, use water that has been standing in the sun all day, or made warm by adding hot water, and apply after sundown.

3d. In hot weather, unite shading with watering.

4th. Use a watering pot with a finely punctured rose, and holding it close to the plant, shake it while watering, so that the drops will fall scattering, as when raining. By this method you avoid hardening the

ground, and more water is absorbed by the soil immediately around the plant.

5th. Where shading is impracticable, and the weather hot, dig a hole with a trowel as near the stalk as the roots will allow and pour water in this hole until it will absorb no more, *allowing none to touch the plant itself*. The next morning fill up this hole with earth.

6th. Where rule fourth is followed, unless the surface around the plant is covered with *mulch*, the next morning stir the ground around the stalk.

These rules are in conflict with those usually given, but trial will prove them correct. The non-observance of the second rule has caused the loss of many a rare and costly plant.

As germane to this subject, we would state that we have found it an excellent rule, not to dig or hoe the garden during a drought; where weeds appear, remove them

by hand. Digging up the ground, during hot dry weather, causes it to lose whatever of moisture there may be left.

### ROSES.

The *Rose* has been very appropriately styled the "Queen of Flowers." This rank it has long, and will, perhaps, forever maintain. A fine assortment of the best varieties of this flower would alone make a handsome flower garden.

The rose will succeed well in any soil, but to have *fine* roses great care in cultivation is necessary. *Our* climate is most congenial to the rose, and with us it can be brought to the greatest perfection. To South Carolina the world is indebted for some of the finest roses that grow.

The soil should be deeply dug and enriched with well-rotted manure. *Poudrette* (night-soil deodorized with charcoal dust,) is one of the best manures for the rose. Well

rotted hen-house manure, mixed with dirt from the wood-pile, is a valuable application. Charcoal dust is an excellent surface dressing; it imbibes and retains moisture, keeps the plant healthy, and intensifies the color of the *red* varieties. A dry sandy loam is the best soil: wet or stiff clay soil is injurious; and where these drawbacks exist they should be remedied by drainage, and the admixture of sand and woods-earth and leached ashes.

Rose bushes may be planted from late in the fall to early in the spring, just before the buds swell; always selecting a dry and cool day. All broken or bruised parts of either the limbs or roots should be cut off smoothly with a sharp knife. *Every* rose should be supported by a suitable stake and neatly tied to it. The *climbers* require frames. Follow the directions elsewhere given for *Transplanting*, observing that roses removed in the spring should be pruned more closely

than those planted in the fall. For the first year after planting the stalk should be surrounded by *mulch*, that is, coarse litter, straw, moss, dead weeds or grass; this should be kept in its place for awhile by small rocks.

The bushes should be examined daily, and any catapillers or lady-bugs found upon them killed. As to the rose-bug, patronize *toads* for their destruction. The green rose louse will not injure the plant, unless they become very numerous, in which case they can be killed by smoking with tobacco, covering the whole bush with a sheet at the time.

Unless you desire to multiply the variety, all suckers should be cut away as they make their appearance. Those roses which send up many suckers should be lifted every three or four years, the roots thinned out, and then replanted. As any limbs die or turn yellow, promptly cut them away, cutting down into the healthy wood.



During the flowering season, the development of the blooms is aided by frequent watering. Liquid manure applied in the evening, not upon the plant, nor in contact with it, but around the surface soil, from the time the first bud commences to open until the blooming season is over, greatly enhances the size and brilliancy of the flowers. When the rose-buds are formed in large numbers, and open slowly, they should be freely thinned out, to increase the vigor of those left. When the rose blooms in clusters, a superb single flower can be produced by pinching off all the flower-buds save the largest, at the time when the buds are *distinctly developed*. Roses of Cloth of Gold of double ordinary size can be thus produced. As soon as the blooms wither, cut them away, as the formation of the seed is a great drain on the vigor of the plant, and besides, withered flowers mar the beauty of the bush.

Pruning of roses should be done in the

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fall or spring, cutting away old wood and the feeble growth of the last year. The different varieties of roses require different pruning: directions will be given under appropriate heads. Never attempt to change the character or habits of roses; adapt your pruning to the particular kind of rose.

#### TEA ROSES.

These roses are so called from their fresh tea fragrance, which most of them have. They are generally of light, delicate colors. The finest of this class are *Triomphe of Luxembourg*, *Devoniensis*, *La Pactole*, *La Marque*, *Safrona*, *Aurora Tea*, *Eliza Sauvage*, *Joan of Arc*, *Marshal Buguead*, *Smithii*, *Caroline Tea*, and the *Noisettes*. This subdivision of the tea roses are hybrids, produced by a French Florist named Noisette, who cultivated a nursery in Charleston about fifty years since. When first produced they caused great excitement among the Parisian

florists, and for years Cloth of Gold plants commanded the price of *five dollars* all over the United States. The choicest of the Noisettes are the Cloth of Gold, Solfatare, Glorie de Dijon, Ophire, and Charles the Tenth. The *Isabella Grey* is also classed with the Noisettes, being a hybrid between the Cloth of Gold and the Persian Yellow, produced by Mr. Grey, of Charleston, about ten years ago. This rose resembles Cloth of Gold, but is of a deeper yellow, and when first introduced the French Government sent an agent to Charleston to buy up, at a premium, all the plants which could be obtained.

#### BOURBON ROSES.

This class of roses is admirably well suited to our climate, luxuriating under the burning heat of a tropical sun. The originals of this class were first produced on the Isle of Bourbon; hence the name. They are almost perpetually in bloom from April to Novem-

ber, and with few exceptions are highly fragrant. These qualities, together with the symmetrical form of the flowers, render this class highly desirable for our gardens. These roses require deep and rich soil to bloom freely. They succeed well, either on their own roots or budded. The finest of the Bourbons are: Souvenir de Malmaison, Madame Desprez, George IV., Mrs. Bosanquet, Marshal Villars, Queen of the Bourbons, Paul Joseph, Leveson Gower.

#### HYBRID PERPETUALS.

This is a comparatively new class of roses, and bloom twice a year, in the spring and fall. These roses are very difficult to establish, and so long a time being required before the layers can be disengaged from the old plants, (being *two* years,) that budding is generally resorted to for propagating them. This is the reason why these roses are always bought from the nursery-man on budded

stocks. They neither succeed so well, nor do justice to themselves in regard to blooming, on their own roots. On budded stocks they produce the finest flowers. Of the *hybrid perpetuals* the select ones are: Madame Laf-  
fay, Baronne Prevost, Duchess de Nemours, La Reine, Crimson Perpetual, Duchess of Sutherland, Emperor Napoleon, Marshal Raglan, Lion of Combats, Baronne Halez, Giant of Battles, Prince Albert, Glorie of Lyons. Hybrid perpetuals should be severely pruned in the *spring*, if a fine autumn display is desired. To have early spring flowers, prune very sparingly in the fall.

#### CHINA ROSES.

These are perpetual bloomers, and thrive admirably in our climate, being too tender for a more northern latitude. They require a dry, loamy soil. In trimming these, never *shorten in*—only thin out the shoots. They flower best on the young wood. This ap-

plies also to the Tea and Bourbon varieties. Of the China roses the choicest are: Madame Bosanquet, Grandiflora, Louis Philippe, Cinnamon, Damask, China Triumphans, Agripina, and Madame Desprez.

#### MOSS ROSES.

These are extremely lovely in the bud, and the red and blush are beautiful when full blown. They are rather difficult to transplant, and must not be pruned at all, except to cut away dead wood. The only method of propagating the moss rose is by suckers or layers. The white roses of this class are not desirable.

#### MUSK ROSES.

The leaves of the musk rose are delightful perfume for clothing. For this purpose the flower leaves should be gathered early in the morning.



## BRIER ROSES.

Of these the *sweet brier* should find a place in every garden, for its exquisite fragrance. The *Harrison* is a fine yellow variety, of luxuriant growth. It is excellent for an arbor or fence rose, but too rampant for a bush, though we have seen the long branches gracefully festooned over the main bush. The suckers are troublesome, and this rose can be abundantly multiplied from them. Prune only the old wood of this rose, and that sparingly. The new growth should not be touched, as it bears the flowers. The *Persian yellow* is a still finer variety of the same—deeper in color, and a very desirable rose. This rose is decidedly improved by budding on a China rose stock, doing better than on its own standard. *Fortune's yellow* is a showy rose, of a rich salmon color, a single flower, but gay and ornamental. It can be propagated by cuttings; but it is of

slow growth until fully established, when it becomes very luxuriant. This rose should never be shortened in, and requires only little pruning.

#### CLIMBING ROSES.

These are not a distinct class, but belong to the preceding ones, being those which have climbing habits. They thrive best on deep, rich soil. The hole for climbers should be dug two feet square, and enriched to the depth of two feet, in order to sustain their luxuriant growth. In the fall they should have a top dressing of manure and woods' earth, which should be dug in very early in the spring.

The pruning of climbers requires more judgment than that of other roses. The two years' old wood does not produce fine flowers; hence, the new growth must be encouraged and the old wood cut away, preserving, however, the main stem the whole

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length. Prune the lateral branches, in the fall, to one or two buds; this will make finer flowers.

The best of the climbers are: The La Marque, the Banksias (which are evergreen), Cloth of Gold, Baronne Prevost, Glorie de Dijon, Cora L. Barton, the Prairie Queen, Multiflora, and the Greville rose. All of these are suitable for frames, porches and arbors.

#### ROSE CUTTINGS.

Rose cuttings may be planted at any time, when the buds are plump, if care be taken to water and shade when the weather is hot. From the middle of December to the middle of February is, however, the best time. The choice cuttings are those which form the extreme of the stems, and have a leaf bud on the end. From these, of course, nothing must be cut off the upper end. If there are any leaves on the cutting, trim

them off at once, leaving the whole of the leaf-stem. The cuttings should be from four to six inches long, according to the diameter of the cutting. Cut off with a very sharp knife, very near and below the lower bud, commencing on the side opposite that bud, and slanting downwards. Cut the top off, half way between the top bud and the next one above it.

In choosing a situation for the cutting plantation, select the north side of a house, fence or piazza. Make the soil, as far as the cuttings reach, pure sand—the purer and cleaner the better. Thrust a garden trowel down slanting, so that the cutting will lean towards the south; draw out the trowel, and insert the cutting so that the bud next to the top bud will be just under the surface, turning the upper part of the top bud to the north. Holding the cutting with the left hand, thrust in the trowel on the north of the cutting and prize it, while in the

ground, *against* the *cutting*—this will pack the sand tightly against the cutting. Then draw out the trowel, and fill up the hole it leaves.

Plant the rows of cuttings from east to west, six inches apart; and where you plant more than one row, plant each succeeding row on the north of the one already planted.

After planting, if you can obtain charcoal dust, scatter enough over the surface to fill up the unevenness made by planting. Or, if this is not to be procured, make the ground even with the hand, and cover the surface over with pine or other short straw, being careful to leave the ends of the cuttings uncovered. This done, water freely at once, unless the weather is freezing at night, in which case water sparingly next morning, when the sun softens the ground.

Keep the ground slightly moist until a rain; after which, never water unless the weather is very dry. Mark the names of

the roses in each row by a stick with a label, lest you forget the names of your cuttings. If these directions for planting be strictly followed, the failure of a single cutting will be accidental.

After the cuttings begin to grow, select the shoot of most upright growth, and with a sharp knife cut off all other shoots as they make their appearance. If the bud which is just beneath the surface sends up a shoot, let this be the one selected, as it will make a well formed bush. As any *flower-buds* make their appearance, pinch them off, as they retard the wood growth. Keep the beds clear of weeds and grass, which must be done by the hand.

When the bushes are one year old, transplant where designed to stand, being careful to place the side which has had most exposure to the sun towards the south. After the hole which is to receive the rose bush is dug, and the roots are put in their



position, run down a small rod, not interfering with any of the roots, to which tie the stem. Then fill in with finely pulverized earth, and follow directions elsewhere given for *Transplanting*.

#### BUDDING ROSES.

*Budding* may be done at any time when plump buds can be procured, and the bark easily slips from the stock on which you are to bud. The best season for budding is from June to August, and should be done late in the afternoon.

As soon as you cut the stem on which are the buds you will use, at once trim off all of the leaves, leaving the whole of the leaf-stem; otherwise the leaves will be pumping out the moisture from the cutting as long as they are left on it. Cut the bud from the stem with a sharp knife, commencing about a third of an inch above the bud, passing nearly half through the stem, and

coming out one-half an inch below the bud. Then take out the wood, by commencing at the lower part and bending it out gradually upwards, supporting the wood with the thumb-nail, so that the eye of the bud will not be torn out. As soon as this is done, put the bud in your mouth, to keep it moist.

Now make a horizontal incision half way around the stalk of the stock, through the bark to the wood. From the middle of this incision make a perpendicular cut down, three quarters of an inch in length. With the back of the blade, gently separate the bark from the wood on the two sides of the perpendicular incision. Take the bud out of your mouth and insert it into the incision, between the bark and wood, and force it down as far as it will go. Then cut off the bark above the bud, exactly over the horizontal cut made in the stock. This will make the bark above the bud exactly fit the bark above the horizontal incision on

the stock. With coarse woollen yarn bind around the stalk, commencing at the lowest extremity of the perpendicular cut and proceeding upwards, also wrapping above the bud. Tie the yarn in a bow-knot, that it may be loosened when necessary.

After the inserted bud has grown about half an inch, unwrap the thread, and re-wrap it more loosely and wider apart than before. As soon as the bud commences to swell, cut off the stock an inch above the bud.

For *stock roses* select the Dog or Dutchman rose, or vigorous young shoots of the *Myerophilla*. Bud low down on the stock (except where rose trees are desired), within two or three inches of the ground, and put the bud in on the north side of the stock. All thorns on the bark of the stock, near where the incision is to be made, should be broken out with the back of the knife before commencing to bud.

When the bud has attained a growth of four or five inches, place a rod on the south side of the stock, close against it, and bind the shoot to the rod with a strip of cloth, occasionally tightening the strip; and, as the shoot grows, put on additional strips. By these means you will secure an upright growth, a handsome tree, and prevent the new shoot from being broken out by the wind. After the shoot has attained the height of five or six inches, cut the portion of the stock which has been allowed to remain above the bud, close off to the bud, slanting the cut upwards, from the south side. This cut will bark over during the summer, and the stock and bud have the appearance of a uniform growth.

#### CUTTINGS.

All other cuttings may be propagated according to the method given for rose cuttings, except in resinous evergreens, or

those which have rough leaves, like the cedar. The cuttings of these should be taken from the *ends* only, preserving the tip end, cutting off the laterals with a sharp knife. The cutting thus prepared should be planted three-fourths of its length below the surface, and placed *perpendicularly*, instead of slanting, in the ground.

Cuttings of evergreens and shrubs should be planted early in the spring, when the leaf-buds are well developed, just before bursting.

#### HYACINTHS.

In October prepare the ground for these bulbs, by digging two feet deep, thoroughly mixing with the soil, as it is returned, equal parts of earth mould and well rotted manure and clean sand. A small quantity of *poudrette*, put in deep, is beneficial. Pulverize and mix in the earth thoroughly with the manure. Then cover four inches thick

with sand, that the manure may not touch the bulbs.

Plant the bulbs of the hyacinths a month after preparing. It is better to plant them in November, because they are weakened, like all other bulbs, by being kept out of the ground too long; and the blooming is stronger when planted in the fall. When planted in the spring, or in January, they are *forced* before they are matured, and do not bloom well.

Plant the bulbs three inches deep in the sand. The colors are believed to mix by planting the different colors together; therefore one should sacrifice beauty of display for the permanent beauty of the colors, by planting the different colors in separate groups.

The bulbs should be set eight inches apart. If the soil is too light, bulbs will be injured by the heat. If too clayey, they will grow feebly and seldom bear handsome flowers.



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Four months after blooming, the foliage dies or turns yellow, when (the spot having been previously marked by sticks with labels) the bulbs should be lifted and separated. The small offsets should be replanted *at once*, to grow for next year, which is better for them than drying. Lift the bulbs when the ground is dry.

Keep all the colors distinct, and carefully wrap each in a bit of newspaper, and bundle all in paper and mark them. Then put away in a room where a fire is never built. We have pursued the newspaper plan of preserving hyacinths for years, and never lost one.

The *double* varieties are considered finest, but the *single* kinds often make up in the increased number of bells. While blooming, the surface soil around the hyacinths should be kept friable with a light hoe.

*Red* hyacinths range from deep crimson to the most delicate shade of pink.

*Blue* hyacinths run through several shades, from a purple to the most delicate tint of blue.

*Yellow* have but three shades—straw, cream and saffron.

*White* hyacinths are distinguished by red, blue, purple, and yellow and green eyes, and sometimes by green stripes.

*Feathered* hyacinths are much more hardy, and require less culture, than the garden hyacinth. They can be easily cultivated on any light, loamy soil, without extra attention. They have a musky perfume, and should be cultivated in masses.

Prepare hyacinth beds a little rounded, in order to shed off water; too much moisture will rot the bulbs. Never allow seed vessels to form (unless you wish to experiment on new varieties), as they weaken the root and injure the succession of bloom.

## TULIPS.

These bulbs thrive best in moderately poor soil, and they will do very well on any ordinary sandy soil, without extra preparation. However, some pains-taking will be rewarded by an improvement. The soil may be spaded twenty inches deep, and, being thoroughly pulverized, mix *at the bottom* a very little well-rotted manure—about one-eighth of the whole soil. A top dressing of four inches of pure sand having been given, the bulbs must be planted three inches deep, *in dry weather*.

The proper time for planting tulip bulbs is in October, or November, at latest. If kept out of the ground, they, of all other bulbs, are weakened, and do not bloom so finely. In lifting the bulbs, the flowering or old roots should be wrapped in paper, labelled and put away in a dry, cool place, until it is time to plant out again.

The offsets, or small bulbs, should be

planted out again, to grow and strengthen until fall, when they can be removed to the tulip-bed. In the tulip the new bulbs form *under* the old ones, and these, if permitted to remain several years in the ground without lifting and separating, become so weakened that they will not flower at all. Therefore, tulip bulbs should be taken up at least every two years, and the finer kinds every year. Set the bulbs out in groups of four or five of each sort, and the effect will be much finer. The larger bulbs should be planted a little deeper than the smaller ones.

Tulips are liable to a change in color, which is called *running*, by which the beauty of the tint is lost in a muddy color. This is prevented, and the original color preserved, by taking up the bulbs as soon as the foliage dies, and drying and setting out again in the fall. Do not allow any seed vessels to form, as they exhaust the root and spoil the succession of blooms.

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The *double* tulips are coarse, formless, and generally thick-colored. With two or three exceptions, they are hardly worth cultivating. The graceful form of the natural flower is its great beauty. The double rose scented, the golden centred crimson, and the bright red striped, are very beautiful.

#### PEONIAS.

Dig fifteen inches deep in a rich, light garden soil, and manure well in the bottom, finely pulverizing and mixing the soil. A northern and a sheltered situation is best for this plant. Transplant in October, and set the crown of the root three inches below the surface. They do not flower well when transplanted in the spring, when the fibres are pushing forward. A top dressing of coarse stable manure in the fall will make them flower more handsomely in the spring. Chop it in carefully very early in the spring, not

injuring the crown of the plant. Under high cultivation, there are often produced, on one plant, from fifty to a hundred magnificent flowers.

The peonia is propagated by division of the root, and sometimes by suckers. By layers, also, they may be propagated, by bending down the shoots in the spring and confining them with pegs. These shoots are very brittle, and they should be fastened with great care. The peonia is in bloom three months of the year, and therefore very desirable in the flower garden.

Two years in the same situation is as long as peonias should be allowed to stand. Lift the roots, divide and reset them in new soil in the fall.

#### TUBEROSES.

These exquisite plants require very rich loam. Only strongly grown roots will flower; consequently, the careful preparation of the



soil is important. Spade the ground two feet deep and enrich with well-rotted manure, leaf mould and *poudrette*. Prepare the ground a month before needed, in the spring. On a dry day, in the latter part of February, plant the bulbs two inches deep in the ground, pressing the earth to them. Plant the offsets separately, to produce flowering roots for the next year, as the bulbs seldom produce flowers the second time.

As soon as their foliage dies the bulbs should be lifted, and, being divested of the dead foliage and fibres, put away in newspaper or dry sand. Plant again in the spring. They are very tender, and liable to be killed if planted too early. There are single and double varieties, of the most delicious perfume. The flowers are borne on a stalk from three to five feet high, which requires the support of a stake.

## WHITE LILY.

This lovely plant grows in clusters, adorning with its drooping head the garden walk, and charming with its sweet perfume. The best time to transplant it is just after it is through its flowering season, in the late spring. It does not do well if removed early in the spring, after the vegetation has started. It is not beneficial to the lily to remove often. Lilies should be cultivated in groups of from three to eight. A top dressing of coarse stable manure, in the fall, will make the lily bloom stronger in the spring. Work in the manure in the early spring.

Herbaceous plants, such as lilies, pinks, peonias, etc., should not be allowed to grow into too large stools. They should be lifted, and fresh soil given, every two or three years. Set the roots a little deeper than before, as the tendency of such plants is to grow out of the soil, when allowed to stand long in one place. In two weeks they will

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root again, and should be occasionally watered, if the weather is dry.

The *tiger lily* is very rich and showy, and produces its bulbs in the axil of the leaves, from which new plants can easily be produced. Sow them as soon as ripe.

DAFFODILS, JONQUILS, IRIS, CROCUS,  
SNOWDROP.

All of these bulbs should be transplanted in the fall, while they are dormant. The bulbs should be planted two and a-half inches deep, in light rich soil, though they will grow in any soil not too stiff.

All bulbs delight in *sandy* soil. Separate the roots every three or four years, leaving them in the ground during the winter. Cultivate all of these plants in clusters, for effect. A handsome arrangement of them can be made in waves, circles, and various figures, by close and uniform planting.

## GLADIOLUS.

This is the wild corn-flag of Italy. This bulb requires deep preparation of the soil, being of a vigorous growth. Rich sandy soil is most suitable for its cultivation.

The bulbs are like the crocus, and, like it, the new bulbs grow *above* the old ones, and, being too near the surface, are very easily killed by the cold; therefore, they should be taken up and separated every two years, to prevent this.

Plant the *seed* in the spring, and transplant in the fall. The bulbs must be planted a few weeks earlier than the tuberose, and require high culture to flower handsomely. Dig up the roots when the foliage dies, and keep them cool and dry until the next spring.

## HOLLYHOCK.

Some gardeners prefer the double Chinese hollyhock to the prim and more stately

dahlia. Cultivated from the *seed*, this flower will bloom in two years. It dies out the third year, if the roots are not divided. Sow the seed late in the spring, and transplant from the seed bed. It is a coarse, strong-growing plant, requiring rich soil; but the flowers are very showy, and the plant easily cultivated.

Transplant the seedlings late in the summer. The next year, when it blooms, destroy all plants bearing inferior flowers. Select the finest, and propagate by dividing the roots every year, just after flowering, cutting off all young shoots. Cultivate in groups. Finer varieties of hollyhock are sometimes increased by cuttings made from the eyes of the flower stems.

#### CHRYSANTHEMUMS.

These bloom in October; hence their common name of "October pinks." It is highly improved in blooming by reducing the num-

ber of flower buds on each shoot to one or two. In May or June the plants should be properly trimmed and bushed, but not later than this. Tie up the bushes to stakes, where not upright and independent, in the month of September. This will preserve the flowers from being ruined by wind and rain.

The different colors should be kept distinct, or all will eventually change and run into one muddy hue. The colors and forms are various, from the large double to the tiny button size, of the most exquisite form and tint.

They are easily propagated by division of roots in early spring. Finer blooming plants, however, can be reared from cuttings than by division. Cuttings must be made just after the blooming season is over.

The situation of chrysanthemums should be changed every three years, or the earth around them entirely renewed by fresh soil. Pig manure is excellent for the chrysanthem-



mum, as also hen manure, applied very early in the spring.

## SPIRÆA.

The various *white* spiræas are easily cultivated in any garden soil, but strong, rich, moist soil is most suitable for their perfection. Stiffness in the soil is necessary to them.

Propagate by suckers, division of roots and layers.

The *Douglass* spiræa is not at all like the class, and has a dirty pink grass-like bloom. It is not worthy a place in any garden, and is exceedingly troublesome with suckers.

## LAGERSTREMIA, OR CRAPE MYRTLE.

This may be readily grown by cuttings or suckers. No particular pains is necessary in the culture. It is improved by close winter pruning, and should be pruned only in the winter. Cut away the wood of last year to within two or three eyes of the wood of the

preceeding year. By this plan you will secure the finest and largest spikes of flowers.

#### SYRINGA, OR MOCK ORANGE.

The flower buds are very beautiful, resembling the orange blossoms. It will thrive in any garden soil, and can easily be increased from suckers.

Thin out the old wood in the winter, and cut out the weaker of the new shoots.

#### FLOWERING ALMOND.

Early in bloom, and one of the few early bloomers in pink color. It is very hardy, and can be abundantly multiplied by suckers. Prune into shape in the fall, and keep down the suckers during the summer. It should be more cultivated.

#### AZALEAS.

This genus of highly ornamental shrubs are, many of them, indigenous with us,

being known as the wild honeysuckle. The colors vary from white to a deep red, which last is rare. The azalea is a flower of great elegance, and not difficult of culture in this its native clime, if some attention be paid to give it a good situation and suitable soil. Azaleas require moist, black, sandy loam, and a *shady* situation. If the wild azaleas are procured from the woods, they should be cut down to the ground, and they will send up numerous shoots and form fine healthy plants. No *animal manure* should ever be applied to an azalea. During the heat of the first summer, after planting, they should be shaded by pine boughs placed upon the south side.

Azaleas may be freely raised from seed, or from layers and suckers. They require water while blooming, to have them in perfection. Rocks laid about them will

conduce to retaining the moisture of the soil.

The Chinese and Indian varieties require protection during very cold weather. Boughs or coarse litter will answer this purpose.

#### RANUNCULUS.

This splendid plant requires the soil to be trenched eighteen or twenty inches, and enriched with earth mould, a little well-rotted cow manure, and an admixture of clay and sand throughout. The root of the ranunculus is a cluster of small tubers, like claws, united in the crown, which should be planted an inch and a half under ground—deeper planting is injurious. After the plant appears, it should be kept weeded, and the soil pressed firmly around them after they get two inches high. They require watering dur-

ing drought. The best situation for the ranunculus is a cool and moist one.

Care should be taken to secure sound and plump roots. As soon as the foliage dies the roots should be lifted and thoroughly dried, and put away in a cool and dry place.

#### GERANIUMS.

These can be cultivated in the open air in our Southern gardens. Plant cuttings under glass early in April. In a month or six weeks these will be rooted, when the pot should be emptied, keeping the earth entire, and the plant placed in a rather shaded situation. These cuttings will grow vigorously, and bloom through the summer, if moved carefully. In the fall, cut them down to the ground. Raise over the root, before frost, a small mound of coarse litter, which remove in the following spring when there is no longer

danger of frost, and they will flourish again.

Earth mould is most suitable to enrich the soil for geraniums. The best variety for out-doors is the rose geranium, though many others are quite vigorous.

The heliotrope, so sweet and lovely, can also be grown out of doors in the same manner.

#### LAVENDER.

Although this is a common herb, it is not unworthy a place in a corner of the flower garden. It is a dwarf shrub, with delicate, glaucous foliage, and bears spikes of blue flowers, in June. The whole plant is delightfully fragrant, but particularly the flowers. These, gathered before the dew is exhaled, can be made up in neat and tasteful bunches, which delightfully perfume drawers and clothing. Lav-



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ender is easily propagated by cuttings or slips.

#### COLUMBINE.

This is finest when planted in masses. This elegant vernal flower is much improved by cultivation. The columbine can be propagated from seed, or the choice varieties by division of the roots. The root should be divided soon after flowering, and not in the spring. It will grow in any garden soil.

#### EVERLASTING PEA.

This plant is a most beautiful, large, light purple or pink flowering climbing perennial. It grows six feet high.

The pea may be propagated by dividing the roots, but sowing seed is the most usual mode. The seed should be planted where the plant is to stand, as it sends down a tap-root to a great depth. Young plants

will flower the second year feebly, but the third or fourth year they produce a profusion of foliage and flowers.

#### SNOWBERRY,

Or, *wax-berry*, as it is often called. This plant is inconspicuous in flower, but is cultivated for its fine white berries, which grow in clusters. Propagate by suckers. It does best in a shady situation.

#### FOUR O'CLOCKS

Are interesting as well as ornamental flowers. Their roots are tuberous, like the dahlia, and can be multiplied and preserved by these tubers. They can, also, be raised from seed.

#### NANKIN PERILLA,

A singular herbaceous plant, growing two or three feet high, with branching stems well covered with ample foliage of a very

dark purple hue. The flowers are small and numerous, but producing little effect. The strange color of the foliage is the principal ornamental merit, and contrasts finely with other plants. It is not abundantly self sowing, therefore the seed should be gathered, and sown in April. It is handsome, planted in masses, when its sombre hue contrasts agreeably with the brighter tints of other flowers.

#### ICE PLANT.

This is a singular, tender annual plant, with thick fleshy leaves, which have the appearance of being covered with very heavy dew. The young seedlings, if transplanted, should be planted in the same kind of soil in which the seed were sown. They can be turned into the open ground in May.

## CHILI JASMINE.

This beautiful climber is a native of South America. The flowers are white, and of exquisite fragrance, growing in clusters. The bloom is produced on the extremity of the shoots. After the flowering season, the plants should be pruned back to within a few eyes of the wood of the preceding year.

## SUMMER HELIOTROPE.

This is a lovely little annual, with sky blue bunches of feathery looking flowers, and is very ornamental planted in masses.

## WALL-FLOWER.

The varieties are numerous, but the single is the most common, and exquisitely fragrant and gay. These last are abundantly self sowing in the fall, but the *double* varieties should be propagated by cuttings in the spring, placed in sand. The old bushes

should be pruned in the fall, or they become scragly and unsightly.

The wall-flower is a half-shrub evergreen. Light rich soil is best adapted to its culture, but it will thrive any where. Those with rusty brown streaks are considered finest.

#### GILLY-FLOWER.

The stock-gilly is deservedly a favorite. It can only be propagated by seed. It blooms the second year, therefore seed should be sown every year to keep up a succession of flowers. It is easy to transplant. The distance of the plants apart must be six inches. The soil should be very rich, and finely worked. The seed are very small, and must be carefully raked in when sown. It is an ornamental plant in a garden, in all its varieties of color.

## PETUNIAS

Are ever-blooming, hardy annuals, of great variety of color. They are in flower from May to November. They should be planted in masses, and are showy trained over rock-work.

Single plants can be trained over small frames, and should always have supports, as they are trailing. The stems and leaves are covered with a viscid substance, which is unpleasant to the touch, therefore they are not suitable for bouquets, but they are handsome decorations to the flower garden:

They can be propagated from cuttings, but they must be protected during the winter. Double varieties are inferior to single.



## PHLOX.

This is a perennial herbaceous plant, very handsome and showy, cultivated in masses. They require a shady situation and some moisture to thrive well. They will die out in dry situations.

They delight in a rich, light, sandy loam. When the plants become large, they should be divided, and planted in fresh ground. The phlox is in flower early, and is continuous in bloom until frost. They will continue longer in bloom by cutting down, after flowering, to prevent them seeding. If you wish seedling plants on the same spot, this trimming must be dispensed with, as the next seedling will be but imperfect. Sow the seed in the fall or spring.

## PORTULACCA.

This is only a variety of the weed *pursley*. But, notwithstanding, when planted in

masses, it is very ornamental. It looks well on rock-work and in jars, or in bordering for beds. The color is crimson, opening its bloom with the morning sun and closing at sunset. Sow the seed in the spring.

#### MIGNONETTE.

A bed of this should be planted in every flower garden, for its exquisite perfume. It can be kept in bloom all summer by trimming off the flowers to prevent them seeding. Sow the seed in the spring.

#### AMBROSIA.

This is also very fragrant. The long spikes of green bloom are very handsome in bouquets. It grows very large by cultivation in rich, moist soil. Sow the seed in the spring. It is abundantly self-sowing after being once established.

## SNAP-DRAGON.

An imperfect perennial, which is apt to die out every few years. It is self-sowing after once being established.

Sow the seed in the fall, or in a hot-bed very early in the spring. Some varieties are very handsome. The *yellow* is objectionable, on account of its weedy propensity. Snap-Dragons will bloom the first year if sown in the fall. They can afterwards be propagated by division of the root or cuttings. The second year the flowers are finer.

The soil should be a rich, sandy loam, though in heavy, moist earth they will grow with greater vigor, but will not flower so profusely as in dryer and lighter soils.

## CANTERBURY BELLS.

A biennial, which should be sown in the spring, and transplanted in August or Sep-

tember, where it is intended to bloom. The flowering is weakened by transplanting in the spring. The same effect of spring transplanting applies to all biennials, and most seedling perennials. No manure should be used on canterbury bells.

#### COREOPSIS.

A common, but showy plant. Sow the seed in the fall, and transplant in March, and it will bloom in June. Propagate afterwards by division of the root. It requires deep, black loam soil, and requires moisture for successful cultivation.

#### LARKSPUR.

The annual larkspurs are very hardy, and are best when self-sown in the summer. Sow the seed in September.

Rich, stiff soil is best suited to its culture. The seed must be sown where desired to stand, as they are injured by transplanting.

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Thin out to stand six inches apart. Sow in masses.

Like many hardy annuals, seed sown late in the autumn will produce stronger plants, though the spring-sown seed may start out of the ground earlier. The lying dormant under ground during the winter seems to start the plants with more vigor, and they are more robust than the spring seedlings.

The *double rocket larkspur*, planted in a variety of colors, in masses, when in bloom is almost equal to a bed of a hyacinths. These seed must always be planted in the fall.

#### PINK.

Pinks can be grown from the seed, and are often abundantly self-sown. The carnations seldom bear seed. Seedlings often produce inferior bloomers, which should at once be exterminated, as they will injure

the finer plants. This is especially the case with the carnations.

The *carnation* pink has preëminence in color and perfume. It is often handsomely striped; but the *French carnations* are pure in color, excepting sometimes they are mottled or pied. The *Florida* pink is a fine large mottled variety, but very tender, and scarcely bears our winter out of doors.

The *grass* pink is hardy and strong-growing, and is very showy and highly ornamental on borders of beds as edgings. But pinks are too exhausting for this purpose, injuring every thing growing within a yard of them.

Pinks die out in two or three years if left to themselves, especially the carnations. Propagate new plants by cuttings or pipings in November. Strip off the old leaves and, with a sharp knife, cut off the stem close below the joint of the stem. Trim the leaves and set the piping in sandy, dry



soil, two inches deep. If planted in clayey or wet soil, they are apt to rot, and take root with difficulty. After planting the piping, press the earth to it with the thumb and finger, and keep moist until a rain.

The pipings will be ready to transplant in six weeks, and will bloom the same year. Old plants should have the earth renewed about every two years, and, trimming off all but three or four centre stems, replant about two inches deeper than before. The trimmings will do for pipings.

Hen-house manure sifted, and soot, are excellent for all pinks.

*Sweet Williams* are very lovely, and not so much cultivated as they should be.

#### GOLDEN ROD.

A deciduous shrub, of pithy growth. It attains the height of three or four feet. Like the spiræa and almond, the bloom precedes the leaves. The stems are covered

with golden yellow bells, blooming the first of March. It is very showy and graceful. It can be easily increased by cuttings or suckers.

#### DOUBLE SUN-FLOWER.

Sow the seed late in the spring. This is a superb flower, nearly double the size of a dahlia, and quite as handsome in appearance. It should be more cultivated.

#### CANDY TUFT.

It is enlivening to the garden, planted in masses. It is hardy, and easily cultivated from seed. The finer varieties require to be propagated by cuttings. Spring-sown seed will do tolerably well, but autumn is the proper time to sow.

#### POPPY.

The poppy blooms three years from the seedlings. It is *impossible* to transplant them,

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therefore they must be planted where they will remain. Propagate, afterwards, by division of the roots, as soon as the foliage dies. If deferred until spring, the bloom will be weakly.

The poppy grows best in rich, stiff soil. Plant in masses.

#### FEVERFEW.

These are worthless, from *seed*; but raised from cuttings, or division of the root, are highly ornamental in the flower yard. Will thrive in any soil.

#### PERIWINKLE.

A trailing evergreen, flourishing best under shade and drip of trees. The flowers are of a pale blue, which, through its dark green foliage, is very cheerful. It can easily be propagated by cuttings, and is continuous in blooming.

## VIOLETS.

Of these fragrant flowers, the *Tuscan* variety is the finest. Violets grow best in the shade. They should be divided, and the soil renewed entirely every two years, to continue blooming. If neglected, they will grow to vines and flower but sparingly.

They should have no heating manures. All that is necessary to their successful culture is wood dirt, or earth mould. Violets make good borders to beds in shady situations.

The division of the roots should be made in the fall. Cultivate in large patches. The violet can be propagated by the seed, which are contained in seed vessels beneath the leaves, close to the ground. These are formed after the violets are through blooming in the summer. Sow the seed in the fall.

## HEARTSEASE.

An annual, self-sowing, and very much improved by culture. Vegetable manure is best for this, too. They require shade to do well. Only the darkest and richest bloomers should be kept, and all others destroyed.

## PANSEYS.

These are an improved variety of hearts-ease. The seed are only good for *one* year, deteriorating by keeping. They should be planted in a protected situation, and sheltered in winter. Moisture is destructive to the pansy, and they should be shaded from the hot sun. The same plant seldom blooms twice.

The finest pansies should be marked for seed and cuttings. Cut off at the second or third joint, and insert two inches deep in a light, sandy soil, and they will root in a few weeks. Remove all blighted leaves

immediately. The soil should be moderately rich with vegetable mould, and kept stirred frequently around the plant.

#### MALLOWS.

These are a species of showy plants, of easy culture. They can be propagated by seed or division of the root.

#### HORNED POPPY.

The particular beauty of this plant is not its flowers, which are pretty—but its “sea-green, dew-splangled leaves.” It is a biennial.

#### MULLEN PINK.

A common, showy border flower, which is not a perfect perennial, but easily kept by dividing the root. The seed will bring flowers the second year. It blooms in April or May.



## ANEMONE.

This is a delicate little plant of the early spring. Its flowers are bluish purple or white. It should be planted in a shady, sheltered spot.

## AMARANTHUS TRI-COLOR.

This is an old but very handsome plant. It grows three feet high, and its foliage is its great beauty. Every leaf is striped with red and yellow, white and green. It is, really, one of the most ornamental stalks I have ever seen. It requires good soil and depth, and plenty of room, to excel.

## TASSEL-FLOWER.

A graceful flowering annual, waving its crimson tassels throughout the summer.

## BALSAMS.

For raising the double kinds, *old seed* are considered the best. Seed should only be

gathered from the double flowering. They require rich soil and much moisture, in a shady situation, to produce fine plants and a profusion of flowers. They are highly ornamental, in the varieties of color, to the garden. Plants can be raised from seed, layers or suckers.

*Balsams*, China asters, marigolds, ten week stocks, hibiscus and zinnias, and most of those plants of a free growing and strong wooded nature, do best by transplanting.

#### BALSAM OF APPLE.

This is an annual. It is a climber, four feet high, and bears yellow flowers. The fruit is fleshy and ovate, and red when ripe. It grows well in this climate, and the fruit is preserved in brandy for the cure of cuts and bruises. It should be cultivated for this virtue, if one were not interested in the curious plant. It should have a stout support, four feet high.

## RHODODENDRON.

This is the American Rose Bay, and grows fifteen or twenty feet high. The foliage is evergreen, leaves large and beautiful, oval, and partially renewed every three or four years.

There is small chance of any of the trees growing which are brought from the woods, because they come from swamp lands. The seed will come up readily, but it requires time and patience to bring it into flower. Shade and humidity are indispensable to this shrub's growth. It requires light rich soil, and moisture.

## CHINA ASTERS.

The seed, when sown in the fall, produce very early flowers. But spring sowing brings on finer blooms in the summer. Transplant a month after they appear above the ground. Black loam is best adapted to its culture and perfection.

## COCKSCOMB.

Save seed only from the finest combs. Sow them in very early spring in a hot-bed. Transplant, and as it grows, remove the side branches to produce one strong head. The *crimson* is only worthy of cultivation, the white being a dirty and inconspicuous color.

The soil for the cockscomb cannot be too rich to bring it to perfection. Fresh horse-dung, without litter, and green turf, watered abundantly, and a shady situation, will bring gigantic and magnificent combs—a handsome ornament to any garden.

## CYPRESS VINE.

A native vine, of exquisite beauty. The seed are difficult to germinate, but are abundantly self-sowing when once established. Scald the seed, and let them remain soaking in water a few days, and when planted they will soon come up. They are very

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weedy when once planted, and troublesome on that account.

The cypress vine is rather difficult to transplant. Seed do best when sown where they are to remain. The vines should be trained in numbers for effect. Ten or a dozen plants in a circle around a six-foot pole, with pegs and twine from the plants to the top of the pole, is soon a mass of verdure with exquisite eyes of scarlet, lovely to behold.

#### MEXICAN VINE.

This vine has a tuber like an Irish potato, from which it can be propagated. The leaves are broad and thick, and gracefully festooned with tassels of white flowers, which are heavily perfumed. The vine is of a rapid summer growth. Plant the tuber in the spring or fall.

## MARIGOLD.

Sow the seed early in the spring. Save seed only from the earliest and largest blooms, marking by little strings tied to the stems. With even the greatest care, marigolds are liable to deteriorate. Be watchful in immediately destroying such plants as bear inferior and single blooms.

The marigold is an annual, but not hardy. It is improved by transplanting. Support the plants by tying them to stout stakes. Plant in clusters, and trim occasionally. We have seen them equal to the finest dahlia, and larger in size, of the most beautiful shades, from straw to orange.

## VERBENA

Can be reared from cuttings and from seed. It flowers the same year from the seed sown in the spring. Plant in masses in a warm exposure to the sun, and enrich the soil with vegetable manure. Septem-



ber and October are the best months to put out cuttings in new beds.

Verbena can be made more continuous in blooming, by trimming the beds down after the blooming season is over. They are beautiful in all varieties, but only the purple and white heliotrope are fragrant. The scarlet is the gayest.

Verbena requires change of soil every few years, and is particularly grateful for new rich earth. The renovation should be made in the fall. Verbena looks very handsome, grown in beds on *lawns*, being in fine contrast with the green grass.

#### HONEYSUCKLES.

These climbing shrubs are most of them natives. They can be propagated by layers, suckers and cuttings.

The *English* honeysuckle is of rapid growth, and very luxuriant and fragrant. It is an evergreen. All honeysuckles re-

quire strong, rich soil, with good depth, to sustain their vigorous growth.

Thin out honeysuckles in the fall, and divest of all superfluous shoots, and shorten in the shoots of last year. If bare at the bottom, and only flowering high up, cut down the vine to within four inches of the ground. The vines will soon send forth new shoots, which can be trained advantageously.

The *Bratton* honeysuckle is an exquisite evergreen hybrid, originated in Winnsboro', South Carolina. The leaves are a light green, smooth and pointed, overhung with feathery festoons of pale yellow flowers, shading off to white. It is the handsomest of all the honeysuckles I have seen. It is extremely difficult to propagate, and, unlike most cuttings, will only take in *rich* soil.

The *yellow* and *red* *woodbines* are very ornamental for pillars and porches. The

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graceful flowers are succeeded by bright red wax berries, which decorate the vines for months. These are readily propagated from cuttings.

#### JESSAMINES.

The *yellow* jessamine is native, and will live if the plants are taken from the uplands. It is evergreen, and gorgeous in flowering. The perfume is delicious. The leaf and flower are poisonous, and hence it should never be planted within the reach of children.

The *white* jessamine is an exceedingly elegant plant, delicate and fragrant, and not surpassed by any of its species. It is pure in color, and exquisite in perfume, with fringy leaves and dark green stems. It may be multiplied from suckers, but is of slow growth until fully established, when it grows rapidly.

## LILAC.

The *purple* is the most common and the most desirable. The *white* is rarer and more delicate, and does not bloom as freely as the purple. It is also difficult to establish.

The *Persian* lilac is still more delicate in flowering, and very beautiful. All lilacs should have protected situations. Destroy the suckers and trim the bushes in the fall. They can be propagated by the suckers.

## SNOWBALL.

A most conspicuous bush with cluster balls of tiny white flowers, like the hydrangea. It readily grows from suckers, layers or cuttings. It grows eight or ten feet high. No flower garden should be without it, for this is one of the most showy and beautiful of the deciduous shrubs.

## DAHLIAS.

These can be easily propagated by division of the roots—the only method necessary for our gardens—though they can be raised from seed.

Sandy soil is best adapted to their successful cultivation. Moisture is important to their perfection in flowering. Plant the tubers early in the spring, in a light hot-bed, slightly covering them with earth, and being careful to protect from the cold. Water well until they sprout, when you may divide the root as you would potatoes for planting, leaving only one eye on each slip. The less of the old tuber planted the better.

Plant the cut tubers in March or April, in the situation designated for blooming. They increase prodigiously. Allow only one stem to each plant, and cut off the side branches, from one to three feet from

the ground, according to the height of the bush.

Rich loam induces luxuriant growth of leaves and imperfect flowers. Whenever dahlias are single they should be thrown away, as such will never improve.

The only remedy for the greenbug is to cautiously watch for it in the morning, and to pick it off and destroy.

Shade of every kind is injurious to dahlias. When they are constantly watered, the ground should be heavily mulched with coarse litter, the better to retain moisture, and to prevent the earth around the plant hardening. Every dahlia should have a frame, or, what is better, be tied to a stout stake, with a soft band.

#### BURNING BUSH.

An elegant shrub, growing eight or ten feet high. The flowers are purple, growing in clusters, succeeded by brilliant scar-



let fruit, which remains until after the leaves have fallen. This shrub can be raised from seed planted in the fall, or propagated by cuttings. It should be planted in a shady and sheltered situation.

FRINGE TREE, OR WEEPING ASH,

“Daddy Greybeard,” is a native, deciduous shrub, which grows twelve feet high. It is difficult to transplant, and does best when grafted on the common ash. Light loam is most congenial to this shrub.

PYRUS JAPONICA.

This is a deciduous plant, and should be transplanted in the fall. The bloom of the red is exceedingly gay in very early spring, the flowers profusely covering the bush, before the leaves appear. The blush is also very handsome. This plant throws up a great number of suckers, from which it can readily be increased. But, in mul-

tipling by this method, there is a disadvantage in unguarded selection from suckers.

*Root* suckers are very troublesome in transmitting to the sucker plant the *habit* of throwing up numerous suckers, and thus generally failing to form sufficient root to support itself. *Offshoots*, or *stem suckers*, differ from these, and are excellent for propagation.

#### DEUTZIA.

This elegant deciduous shrub is a native of Japan and China. It is easy of culture, and perfectly hardy, and can be increased by cuttings and layers. In the spring the plant is covered with a profusion of white blossoms, which are highly fragrant.

The rough-leaved deutzia is used by the Japanese cabinet-makers for polishing wood. The *slender deutzia* is more airy and

graceful in appearance, growing three feet high, with a slightly pendant habit. The leaves are only an inch long, and the flowers are star-shaped, of a delicate paper white. It requires a rich, light soil.

#### HYDRANGEA.

This is a deciduous shrub, and, being tolerably hardy, will grow in the open air where the winters are not too severe. They require shade to grow or bloom well, and when in flower need profuse watering. The pink variety is most usual, but the color can be changed to *blue* by mixing in a large portion of decayed leaves and swamp earth. If the plant is very thick, the oldest branches may be thinned out, never cutting out any of the *young* shoots, as these bear the flowers. Propagate by offshoots or cuttings.

## EVERGREENS.

These will grow in any soil, but are improved in rapidity of growth by deep digging and manuring. Be very cautious in *pruning* evergreens, because many of them are seriously injured by the knife. The *Weeping Cypress* and *Norway Spruce* we know it is detrimental to prune. Tying with twine is all that is necessary to bring them into proper shape.

In *planting* evergreens, see the directions elsewhere given for *transplanting*.

For *propagation*, see directions for raising *cuttings*, with more shading. Evergreens can be easily reared from the seed, and the plants are more symmetrical and healthy than those raised from cuttings. Seedlings should not be transplanted until they are two years old, but a better plan is to plant the seed where the trees will stand.

The *best* plan, however, is to buy good trees and plants from the nearest *nursery*.

We subjoin the names of those which we *know* to be desirable for the flower garden:

#### DEODAR CYPRESS.

This is commonly called *cedar*. It is a native of the Himalaya mountains, where it attains the height of one hundred and fifty feet, with a trunk thirty feet in circumference. It is the most beautiful of all resinous evergreens, and is of very rapid growth, growing in ordinary soil at least one foot a year, and in trenched ground two feet annually.

This superb tree grows well in our climate, and would be valuable timber growth for this country. Several thousand bushels of the seed were imported into England by the Government, and placed in the hands of reliable nursery-men, to cultivate,

on condition of returning one-half to the Government at the end of three years, to be planted for timber growth.

The wood of the Deodar cypress is compact, resinous, highly fragrant, and of a deep, rich color, like polished brown agate. The wood of this tree, in the roofs of buildings, was found perfectly sound after more than *two hundred* years. Some used in constructing a bridge in Cashmere was but little decayed after *four hundred* years' exposure to the action of the water.

The tree is most handsome when only allowed one main trunk, from which the limbs droop in the most graceful manner.

#### FUNEREAL CYPRESS.

This is a beautiful, feathery, cedar-like tree, which attains the height of fifty or sixty feet. It is one of the most desirable of this kind of evergreens.



HEATH'S CYPRESS.

A fine, dark evergreen, with reddish stems and stalks. This plant will only thrive in partially shaded situations.

PYRAMIDAL CYPRESS,

Is very handsome, and naturally assumes the pyramidal form, growing to the height of twenty feet. The cypress tribe may all be propagated by layers and cuttings, but much more readily by seeds. These generally lie in the ground a year before they sprout.

NORWAY SPRUCE.

This is a hardy and ornamental evergreen, of yellowish green foliage. It is the tallest of the European firs, with a straight, slender trunk, thick foliage and drooping branches. Although formal in appearance, when young, it is one of the most ornamental of all evergreens when

grown, when the limbs droop in depending curves, adding fresh graces to it.

The *Norway Spruce* will thrive in any soil and adapts itself to any situation. It should not be pruned at all. It attains the height of one hundred feet.

#### CHILI PINE.

A beautiful tree, when healthy, which it rarely is. It attains, in its native soil, one hundred feet in height. It is elegant and unique.

#### CALIFORNIA ARBOR VITÆ.

A very handsome specimen, with fans turned in diverse directions. The stems and stalks are red. It is of rapid growth, and attains the height of fifty feet.

#### GOLDEN ARBOR VITÆ.

This Chinese variety of the arbor vitæ is the choicest of its kind. It should

never be pruned. It grows only six feet high, and is perfectly symmetrical, and very compact in foliage. It is almost golden hued in color, which gives it the name it bears. In winter, however, it changes to a rusty color. But its symmetry and usual beauty is sufficient amends for a temporary discoloration.

#### PYRAMIDAL ARBOR VITÆ.

This is also a compact growth, the color bright green, and grows ten feet high. It should never be pruned.

#### PALM-LEAF ARBOR VITÆ,

Has large, beautiful fans, in graceful foliage.

#### HEMLOCK SPRUCE.

This elegant tree is of a lively, green color. Humid soil is best adapted to its culture. It is rather difficult to transplant.

This spruce is not of such monotonous formality as the Norway spruce, the limbs being still more depending.

The hemlock is considered the most beautiful tree of this family. It is of slow growth until fully established. It has great softness and delicacy of foliage, and slender, tapering branches. It bears severe pruning without the slightest injury.

#### CEDAR OF LEBANON.

This magnificent tree will grow in any soil. It advances with great rapidity in growth, but can scarcely equal the lovely, silvery *Deodar*. The cones of the Lebanon cedar are four inches long, and beautifully drawn. Deep trenching is of amazing utility in advancing the growth of this ever-green.

## JAPAN CEDAR.

This cedar attains the height of one hundred feet, and is very ornamental.

## SILVER FIR.

Planted favorably, no tree is of more rapid growth than this. In a dry, compact soil, it grows slowly and is short lived, but in deep, rich loam, and a sheltered position, it will grow rapidly, and with great vigor.

The *California Silver Fir* is a trim and beautiful tree, which grows two hundred feet high, branching out from near the ground, and preserving a conic symmetry, with the utmost precision, creating an impression that it must have been trimmed by an experienced gardener. This tree, when first introduced into Europe, brought sixteen dollars for seedlings of one year.

## JUNIPERS.

These evergreens display a silvery green foliage, growing in pyramidal form naturally. The leaves are small. Plants can be raised from the seed, which require eighteen months to vegetate. A dry loam on gravelly sub-soil is best adapted to their culture.

Junipers should be encouraged to throw off branches from the ground, if intended for ornamental trees. Pruning the lower branches spoils the beauty of the trees, which are naturally perfectly plume-like in shape.

## BALSAM FIR.

When planted in good soil, in a few years this fir becomes a perfect pyramid of dark green foliage. Rich, sandy soil is best adapted to it. It is hardy, easily transplanted, and grows rapidly and with great vigor. The greatest objection to the balsam fir is its early decay. It is short-lived, and



becomes very ragged in its appearance when it attains its full growth.

#### HOLLY.

We have a fine native species, which is of slow growth, but is lovely even as a shrub. It is extremely difficult to transplant and establish. The best time to remove the plants from the woods is just before the buds begin to shoot. The smaller the plant the better the success of transplanting. Protect them a long time from the sun's rays.

The native holly grows from twenty to forty feet high, and if not trimmed the lower limbs rest upon the ground, and the whole tree forms a beautiful symmetrical cone. In the fall it is covered with red berry fruit, which remain all winter.

## HOLLY-LEAVED BERBERRY.

This is not so beautiful as our native holly, but is easier to transplant. It grows six feet high.

## TEA PLANT.

This plant is a half-hardy evergreen shrub, thickly branched, with dark green foliage, like the *camelia japonica*. The bloom is white. It grows from four to six feet high, when cultivated for tea-making, but will attain a height of ten feet when not dwarfed by this process.

A light yellowish loam, well mixed with sand and moderately moist, is best for this plant. Earth mould, or any vegetable manure, will increase its vigor. In order to make it assume a round and bushy outline, the ends of the shoots should be pinched off with the fingers, (this plant must not be touched with the knife,) otherwise it will grow too straggling.

This shrub may be propagated from seed or cuttings. The seed should be planted two or three inches deep, and will vegetate in two or three months. The cuttings must be planted in October, and taken from matured shoots. The seedlings or cuttings can be transplanted when a year old.

#### LAUREL.

All the *laurels* are fine, either the native species or the English. The *kalmia*, or native laurel, should be cut down to the ground, in transplanting, to do well, being an exception to its species in this respect.

The *English* laurel is one of our most beautiful evergreens, with large, shining, green leaves. It grows twenty feet high, and bears a small white flower. It is of very rapid growth, and a desirable tree in the flower yard.

## CAPE JESSAMINE.

This handsome evergreen has beautiful dark green leaves, with a rich camelia-like flower, of delicious fragrance. It grows ten feet high, and may be propagated by layers or cuttings. They can also be grown in water, in glass, until rootlets appear, and the glass then filled up with sand. When established in the sand, break off the glass and set in the ground without disturbing the roots. Plant *cuttings* in sand, and keep saturated with water, and they will be sure to succeed. The cape jessamine is handsome in single plants or hedges. In either case they should be allowed to stool.

## CAMELIA JAPONICA.

This splendid evergreen can be grown out of doors in the more southern localities of this State, and therefore a description of its cultivation will not be out of place in

this treatise. The camelia can be increased by layers, cuttings and seed.

*Layers* can be made from shoots of the last year's growth. Trim the shoot clear of all side shoots or leaves as far as necessary to bed them. Dig the earth carefully, breaking it fine and mixing rich earth-mould with it, and let it be slightly raised above the level of the ground, or if the branch be too high from the ground, place a pot filled with earth under the branch. Make a slanting cut upwards half through the branch, immediately below and close to a bud, which is termed "*tongueing*" it. Cut off the tip end of the tongue. This cut should be made at such a distance as to permit its being bent down into the ground. Give the branch a slightly twisting motion in the process, to prevent snapping it off and to open it; then pin it down to the ground with a forked stick. Cover with two or three inches of earth. Then press the earth gently on and

around the layer, and shorten to one or two buds above the surface. This description of *layering* applies generally to all plants that admit of this method of propagation. Layering may be done on the last year's growth just before the sap begins to rise in the spring; or, on the the new growth of the year, any time from the middle of June to the end of July, and even later. If pots are used for this operation, the earth in the pot must be kept very moist until the layer has rooted, care being taken in watering not to wash away the earth from around the cut.

Plants propagated by *seed* are so symmetrical and healthy that they will amply repay the pains necessary to be taken to raise them by this method. Select a plant to bear seed, the *pistils* of whose blooms are perfect. If you have none, you need not attempt the experiment. Then take a fine camel-hair pencil and put it gently on the



*pollen* of the bloom of another plant (always a *double* variety), then, with this on the pencil, dust it lightly on the *stigma* of the bloom you have selected to bear seed, just as it is newly expanded. Between the hours of ten and twelve in the forenoon is the most proper time for the operation. The seed must be sown as soon as ripe. Plant them about an inch deep, in pots filled with leaf mould, loam and white sand, in equal portions, and place the pots in a warm situation. When six inches high transfer from the pots to the places where you desire them to grow. These will bloom the second year. Endless varieties can be produced by this method of *hybridizing*, which can successfully be applied to the rose and many other flowers.

For the cultivation of the camelia the soil should be enriched to the depth of two feet with vegetable mould. *Animal* manure must never be applied to the japonica. In watering, be careful never to let any water

fall on the blooms, as this causes premature decay and fading of the colors.

When the plant is young, during the heat of summer, mulch well around the stem; and, if the plant be vigorous, water freely during dry weather; but if the plant be sickly, shade with evergreen boughs and water often, but sparingly. The japonica, out of doors, attains a height of from ten to twenty-five feet.

#### PITTOSPORUM.

This evergreen is a native of China, and quite hardy with us, growing to a height of fifteen feet. The foliage is very handsome, and is dark green. It bears clusters of small white flowers, of fine fragrance. There is also a variegated variety of the pittosporum. This ornamental evergreen will grow with the most simple treatment. It is easily propagated by cuttings.

## TWISTED CYPRESS.

This is a desirable evergreen, growing fifteen feet high. Its foliage partakes of the appearance of both cedar and arbor vitæ, and seems to have a tendency to twist; hence its name. It forms a beautiful conical tree.

## OLEANDER.

This is a beautiful, erect-growing shrub, of easy culture. It is subject to disease from becoming infested with a white, scaly insect, which must be destroyed by washing. The single is not so handsome as the double rose, which is exceedingly tender. Oleanders grow eight feet high. When they become sluggish, and do not bloom well, they should be cut down to the ground. They require some protection in the winter. The roots have wonderful vitality. Indeed, many evergreens have the same quality, and often, when apparently

dead for a year, will suddenly put forth new and vigorous. We have known an oleander root longer than this in a dormant condition, and to send forth fine healthy shoots.

#### CORK OAK.

This is a handsome evergreen, imported by the Government from Spain, and is suitable for a *shade tree*. The leaves are shaped like the holly, but rounder and of a paler green, similar to the live oak, with very large acorns. It is of very rapid growth, having grown two feet the first year. It is said to make a noble tree in less than twelve years.

It is rather difficult to transplant, but with shade and extra care in moving, not many will fail, although all lose the foliage, and renew on their recovery from the removal. The propagation is very easy from the acorns.

## FLORIDA MAGNOLIA.

This magnificent and noble tree is indigenous to our Southern States. Inland it attains a height of from ten to twenty feet. Nearer the coast it is of gigantic growth. There is not a more magnificent sight in the world than an avenue of these superb evergreens, with their monstrous blooms, such as grow in the lower parts of South Carolina and Georgia.

The *magnolia* is of slow growth, but always elegant and symmetrical. The health and vigor of the trees are promoted by occasionally giving a top-dressing of salt, not allowing the salt to come in contact with the trunk or roots of the tree.

## CHINESE MAGNOLIA.

This is a much more hardy species, and soon attains its full height, of six or eight feet. The flowers are lily-shaped, smaller than the Florida, and of two colors, the

white and the purple. When full grown it loses its lower branches, and assumes the appearance of an immense umbrella.

EUONYMOUS.

The foliage is a deep, shining green, of rapid growth, and suitable for hedges. The single plants require close and frequent pruning. The silver-edged is much the handsomer. It grows well from cuttings. No necessity for small plants to have roots, as they will grow without. Height, ten to fifteen feet. Seedlings change very much in character from the parent plant.

MESPILUS JAPONICA.

This is a fine plant with large leaves, white underneath. It bears small white flowers on a spike, which produces, in a favorable climate, fruit of the size of a walnut, of a fine yellow blush color. It is of easy culture, and perfectly hardy.



## PRIVET.

The *privets* are all handsome in hedges. The *American* bears a black berry, and the *English* a green berry, and both make good hedges. We also have the silver-edged, with variegated foliage. The Japan privet has long, oval leaves, of a bright green color, and is perfectly hardy. The *L. Lucida* privet has elegant, thick, camelia-like foliage, and grows from ten to fifteen feet high, into a handsome and symmetrical tree. It bears spikes of small white flowers, succeeded by black berries, which hang on all winter.

## TREE BOX.

This makes an ornamental hedge, and grows very rapidly. It is suitable for face hedging to other growth, to hide defects, growing well under trees. In single plants it grows twenty feet high, and can be

trimmed into any shape desired. The golden-edged is a very pretty variety.

The *dwarf* box is best for edging beds, and should first be cultivated from cuttings, in plantations, and well rooted before bordering, because so uncertain.

Box edgings which have remained a number of years in the same place, should be taken up and relaid. Dig them up and cut off the lower roots with a hatchet, and square the young top shoots with a sharp knife. The surplus box can be used in other parts of the garden.

#### FRENCH FURZE.

An erect, prickly, evergreen shrub. It makes handsome and impenetrable hedges. It must be closely and regularly trimmed, or it becomes unsightly. Old and scraggly grown trees should be cut down to the ground, and they will soon put out again. It grows four feet high. It should be

more cultivated, for it is very gay and beautiful in bloom. It blossoms early in the spring, in flowers of pea-bloom shape. In fact, it is more or less in bloom all the year; hence the old French proverb, that "love goes out of fashion when the furze goes out of bloom."

#### WILD\_ ORANGE,

Elsewhere known as the Carolina cherry, is one of the most beautiful vegetable productions of the South. The foliage is a dark, shining green, handsome at all seasons. It has a small white bloom, succeeded by black fruit in berries. Its growth is extraordinarily vigorous and rapid. It is universally used in hedges; and forms, when trimmed, solid walls of verdure, from ten to twenty feet high. The hedges require trimming twice in the year, in spring, and in fall after it has completed its growth for

the season. Single trees can be trimmed into any shape desired.

The seed are difficult to germinate, and when planted sometimes lie dormant in the ground *two* years before they come up. But by the following plan they can be easily raised. Put the seed, when ripe, into some vessel, with plenty of fresh ashes or lime mixed through them. In a week or ten days the hulls will readily rub off with the hands. Having hulled the seed, soak them in water until some of them burst, then plant immediately, in a rich bed. The first soaking rain will bring them up like peas. Transplant when one year old, when in a dormant state; though the better plan is to sow the seed where they are to stand. The proper time to sow seed is in February or March.

## WHITE PINE.

This is the loftiest pine in the Atlantic States, attaining a height of two hundred feet. The cones are four or five inches long. Young trees make an elegant appearance, owing to the lightness and delicacy of the foliage. It is not easily grown at the South. It is precarious of life, and when transplanted is liable to die. Hence we say that this is an *undesirable* evergreen.

## OLIVE.

Olives require a temperate and equable climate. Too great heat is as hurtful to them as severe cold. Sudden changes of temperature are exceedingly injurious; hence it would seem to be little adapted to our variable climate.

It is very delicate, and difficult to establish in our latitude. If planted at all, it should have the benefit of a shady situation. The climate of Florida, however, suits

the olive, and in East Florida are several large olive trees planted by a colony of Greeks in 1783. There is a native olive found thinly disseminated through Florida and along the shores of the Gulf of Mexico, as far as Louisiana, sometimes known as the *Devil-wood*.

A humid soil or situation is injurious to the olive. It will grow from cuttings and pieces of root, and is very tenacious of life.

The old proverb, that "no man who has planted an olive has ever tasted of its fruit," though not literally true, has arisen from the extreme slowness of its growth.

The *fragrant olive* is a native of China and Japan, and is a more interesting plant. The flowers are white, growing in bunches, and highly fragrant, and are used by the Chinese for perfuming their teas. This species requires the same treatment as the European olive, and is of very slow growth.



## YEWS.

These evergreens belong to the pine genus. The foliage resembles the hemlock spruce, but the fruit is not a cone, but a small red berry, in the hollow part of the extremity of which a small green seed appears. The yew can be clipped, without injury, into any shape. The leaves of the yew are very poisonous, both to men and cattle. The yews are all of extremely slow growth, and therefore *very undesirable* in the flower garden.

The English yew grows to the height of twenty feet, and the Irish variety ten feet. The Canadian yew is a low, prostrate shrub, entirely worthless.

## WASHINGTONIA GIGANTEA.

This is the giant pine of California. Doubtless its mammoth dimensions may be attributed to the richness of the soil in which it grows. The whole number of

these trees in existence, young and old, does not exceed five hundred, and all are comprised within an area of about fifty acres. This spot is a rich gold region near Sonora.

One of these noble trees was, by some *gigantic* accident, overthrown, some forty or fifty years since, the trunk of which was three hundred feet in length and the tree had, undoubtedly, attained the height of five hundred feet, when standing alive. At the butt it was one hundred and ten feet in circumference, or about thirty-six feet in diameter. On the bark quite a soil had accumulated, on which large shrubs were growing, elevated twenty-two feet above the ground. The seed of this tree has been calculated to have germinated when Moses was a baby.

The leaves are triangular and scale-like, as in the cedar, and the wood is a deep red. The cones require two years to at-

tain their full growth, when they are upwards of a foot in length and nearly four inches in diameter.

The growth of this giant pine is very slow, and its appearance, while young, not striking. It will attain a proper height for a flower garden in *fifty* years, and its full height in about *one thousand* years.

#### AUCUBAN JAPONICA,

Or Blotch plant, is of slow and precarious growth, and only attains an inconsiderable height. It has yellow spotted or blotched leaves, hence its name. The flowers are small and insignificant. If planted at all, it requires a shady situation to grow more freely. The hot sun is fatal to the Aucuban japonica.

## LAWNS.

To succeed well with lawns, the ground must be *trenched*, that the grass roots may penetrate at least two feet deep, and not be injured by drought, and preserve the freshness of color throughout the summer.

After the ground has been trenched, it must be smoothly raked, and allowed to settle a week or ten days before planting. Loosen the surface with the rake when ready to sow the seed. Grass seed should be sown heavily, to cover the ground completely. After sowing, the ground should be rolled with a heavy roller.

Lawns should be frequently mown, and rolled after every rain, to make them velvety and close in texture. It is of great importance to have the plats heavily seeded, for then weeds can have no chance to grow. Never allow the grass to go to

seed, but regularly mow every three or four weeks, from April to October. Never permit the grass to grow higher than four inches.

In very dry weather, all lawns should be watered. In small plats, where a thick turf is required, the quantity of seed must be doubled.

A mixture of grass seed is better than any single variety alone. For instance, sow equal parts of *red-top* and *blue-grass*—the *Hungarian* and *Palmer* grass, etc.

The time for sowing lawns is in the spring or autumn. Sow broadcast, and as uniformly as possible, slightly covering the seed with a sprinkling of vegetable earth, and roll it well. With constant care a lawn will last a long time, but if abandoned to itself, it will have to be renewed every few years. Lawns require to be weeded every spring and fall. They should be top-dressed in autumn with long ma-

nure, raking off the straw in the spring, before the grass begins to grow. A mixture of guano and soot is equally good for a top dressing. A sprinkling of vegetable earth is the best fertilizer that can be applied to a strong soil. This should be done once in three years.

Small lawns are improved by resowing every year, to keep them fresh and thick. If old lawns become mossy, the best plan is to harrow with an iron rake, and instead of disturbing the grass it will improve it. Guano, mixed half-and-half with sand or charcoal, is a great renovator of grass plats, if sown before a rain in February. By neglecting to mow grass too long, the roots become tender, and die under the heat of the sun.



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
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